



INFORMS TutORials in Operations Research

Publication details, including instructions for authors and subscription information:
<http://pubsonline.informs.org>

Contributing Authors

To cite this entry: Contributing Authors. *In* INFORMS TutORials in Operations Research. Published online: 14 Oct 2022; 228-234.

<https://doi.org/10.1287/educ.2022.0252.contrib>

Full terms and conditions of use: <https://pubsonline.informs.org/Publications/Librarians-Portal/PubsOnLine-Terms-and-Conditions>

This article may be used only for the purposes of research, teaching, and/or private study. Commercial use or systematic downloading (by robots or other automatic processes) is prohibited without explicit Publisher approval, unless otherwise noted. For more information, contact permissions@informs.org.

The Publisher does not warrant or guarantee the article's accuracy, completeness, merchantability, fitness for a particular purpose, or non-infringement. Descriptions of, or references to, products or publications, or inclusion of an advertisement in this article, neither constitutes nor implies a guarantee, endorsement, or support of claims made of that product, publication, or service.

Copyright © 2022, INFORMS

Please scroll down for article—it is on subsequent pages



With 12,500 members from nearly 90 countries, INFORMS is the largest international association of operations research (O.R.) and analytics professionals and students. INFORMS provides unique networking and learning opportunities for individual professionals, and organizations of all types and sizes, to better understand and use O.R. and analytics tools and methods to transform strategic visions and achieve better outcomes. For more information on INFORMS, its publications, membership, or meetings visit <http://www.informs.org>

Contributing Authors

Kehinde Abiodun (“The Role of Microgrids in Advancing Energy Equity Through Access and Resilience”) is a final-year PhD candidate at the Colorado School of Mines in mineral and energy economics and whose research cuts across development economics and energy modeling. He is particularly interested in how electricity reliability and resilience affect growth and development outcomes in both the developing world and low-income societies. Kehinde currently works as a research assistant with Alexandra Newman on the economic viability of concentrating solar power plants, among other research endeavors.

Karthik Balasubramanian (“Operations Research on Mobile-Enabled Financial Inclusion: A Road Map to Impact”) is an assistant professor in the Information Systems and Supply Chain Management unit at the Howard University School of Business. He is broadly interested in real-world optimization, especially as it is applied to base-of-the-pyramid business strategy in sub-Saharan Africa and voter turnout among traditionally marginalized urban communities in the United States. Karthik earned a PhD in business administration from Harvard Business School, where his dissertation focused on the optimization of inventory management for mobile money agents in Tanzania, Kenya, and Zambia. Among other outlets, his work has been published in the *New York Times* and in *Manufacturing & Service Operations Management*.

George P. Ball (“Product Recall Research: Dimensions, Methods, and Regulator Implications”) is the Weimer Faculty Fellow and associate professor of operations and decision technologies at the Kelley School of Business, Indiana University Bloomington. His research interests include product recall causes and effects and also the managerial product recall decision-making process. He also focuses on federal regulatory policy that relates to product quality and product recalls, particularly Food and Drug Administration (FDA) policies. He and his colleagues have partnered with the FDA in two large multiuniversity collaboration projects targeted toward pharmaceutical product quality, FDA plant inspections, and drug shortages. Prior to earning his PhD at the Carlson School of Management at the University of Minnesota, George worked in the medical device industry for 11 years in various managerial roles.

Noah Chicoine (“Supply Chain Resilience: Impact of Stakeholder Behavior and Trustworthy Information Sharing with a Case Study on Pharmaceutical Supply Chains”) is a PhD student in the Department of Mechanical and Industrial Engineering at Northeastern University, advised by Jackie Griffin. His research focus is on information transparency and reliability in pharmaceutical supply chains. Recently, this work has guided him toward the analysis and modeling of “estimated resupply dates” communicated by pharmaceutical manufacturers to hospitals. Noah is studying this information-sharing format to quantify impacts and potential solutions to the problem of inaccurate and evolving resupply information.

Özlem Ergun (“Supply Chain Resilience: Impact of Stakeholder Behavior and Trustworthy Information Sharing with a Case Study on Pharmaceutical Supply Chains”) is a College of Engineering Distinguished Professor in Mechanical and Industrial Engineering at Northeastern University. Her research focuses on design and management of large-scale and decentralized networks. She has applied her work on network design, management, and resilience to problems arising in many critical systems including transportation, pharmaceuticals, and healthcare. She has worked with organizations that respond to emergencies and humanitarian crises around the world, including the U.S. Agency for International Development, United Nations World Food Program (UN WFP), United Nations High Commissioner for Refugees, International Federation of Red Cross and Red Crescent Societies, Federal Emergency Management Agency, and U.S. Army Corps of Engineers. Her decade-long collaboration with the UN WFP (the largest humanitarian organization in the world) to develop and implement supply chain optimization and analytics capabilities was awarded the INFORMS Franz Edelman Prize in 2021. She currently serves as area editor for *Operations Research* in the Policy Modeling and the Public Sector Area and as department editor for *Manufacturing & Service Operations Management* in the Environment, Health and Society Department.

Arnav Gautam (“The Role of Microgrids in Advancing Energy Equity Through Access and Resilience”) is a PhD student in the Department of Engineering and Public Policy at Carnegie Mellon University. Arnav holds a BS in electrical engineering and computer science, and a BA in cognitive science, both from the University of California, Berkeley. Arnav previously worked as a software engineer at Clean Power Research and has applied a variety of computational and analytical tools to address questions in climate change and renewable energy. Arnav is currently working with Destenie Nock and Amritanshu Pandey on the optimization and simulation of microgrids with distributed energy resources to facilitate natural disaster recoveries. Arnav is interested in equitable decarbonization, infrastructure resilience to climate threats, and improving renewable energy adoption across the globe.

Min Gong (“Supply Chain Resilience: Impact of Stakeholder Behavior and Trustworthy Information Sharing with a Case Study on Pharmaceutical Supply Chains”) is a PhD student in the Mechanical and Industrial Engineering Department at Northeastern University, advised by Jacqueline Griffin. His research focuses on supply chain resilience and decision making in supply chain management.

Jacqueline Griffin (“Supply Chain Resilience: Impact of Stakeholder Behavior and Trustworthy Information Sharing with a Case Study on Pharmaceutical Supply Chains”) is an associate professor in the Mechanical and Industrial Engineering Department at Northeastern University. Her research focuses on applications of operations research, optimization, and simulation methodologies in designing, managing, and operating resilient healthcare delivery systems, ranging from outpatient clinics to regional emergency response networks to global pharmaceutical supply chains. She has led multiple National Science Foundation-funded projects focused on tackling the ongoing challenge of drug shortages in the United States and has partnered with many prominent healthcare organizations to examine new strategies for improving the design and operation of healthcare systems. She received her PhD from the H. Milton Stewart School of Industrial and Systems Engineering at Georgia Institute of Technology. Additionally, she completed her MS and BS degrees in the Industrial and Systems Engineering Department at Lehigh University.

Nicholas G. Hall (“Choosing Opponents in Tournaments”) is professor in the Department of Operations and Business Analytics at the Fisher College of Business at The Ohio State University. He holds a PhD in management science from the University of California,

Berkeley. His research interests are in project management, scheduling, incentives, and applications of operations research. He has published over 90 articles appearing in *Operations Research*, *Management Science*, *Mathematics of Operations Research*, *Mathematical Programming*, *Games and Economic Behavior*, *Interfaces*, and others. His main teaching interest is in project management, especially for MBA and executive education courses. He has served for over 40 years on the editorial boards of *Operations Research* and *Management Science*. He has given more than 400 academic presentations, including 180 invited presentations in 28 countries, 20 conference keynote presentations, and 10 INFORMS Annual Meeting tutorials. A 2008 citation study ranked him 13th among 1,376 scholars in the operations management field. He has served as president of the Manufacturing and Service Operations Management Society (1999–2000) and as treasurer of INFORMS (2011–2014). He served on the State of Ohio Steel Industry Advisory Council (1997–2002). He is the owner of CDOR, a consulting business that provides business solutions to Ohio business and government communities and advice on intellectual property issues to New York City law firms. In 2018, he served as the 24th president of INFORMS and introduced an outreach program to leading policy makers at the White House and on Capitol Hill. He currently serves as editor of *INFORMS Analytics Collections*, a multimedia publication of INFORMS. He is a fellow of INFORMS.

Casper Harteveld (“Supply Chain Resilience: Impact of Stakeholder Behavior and Trustworthy Information Sharing with a Case Study on Pharmaceutical Supply Chains”) is an associate professor of game design at Northeastern University. His research focuses on two efforts: (1) advancing the use of games and gamification for studying and improving human behavior and (2) empowering people to design, use, and analyze games and gamification for education and social impact. He applies his work foremost in the context of resilience, sustainability, and health. He is also a strong proponent of integrating research and education, and a significant portion of his work is devoted to translating research outcomes to the classroom or informal settings.

David Kaeli (“Supply Chain Resilience: Impact of Stakeholder Behavior and Trustworthy Information Sharing with a Case Study on Pharmaceutical Supply Chains”) is a College of Engineering Distinguished Professor at Northeastern University and the director of the Northeastern University Computer Architecture Research Laboratory (NUCAR). He received his PhD in electrical engineering from Rutgers University. Prior to joining Northeastern in 1993, Kaeli spent 12 years at IBM, the last 7 being at the Thomas J. Watson Research Center, Yorktown Heights, New York. He has published over 400 critically reviewed publications, 8 books, and holds 11 patents. His research spans a range of areas including microarchitecture, heterogeneous programming languages, and database systems. In addition to studying supply chain dynamics, his current research topics include cybersecurity, graphics processors, virtualization, reliability, and applied artificial intelligence. He is a fellow of the Institute of Electrical and Electronics Engineers and the Association for Computing Machinery.

Elena Katok (“Using Simple Games to Teach Supply Chain Management”) joined the Jindal School of Management at the University of Texas at Dallas in 2012. She is the Ashok and Monica Mago Professor of Operations Management. She is also on the international faculty at the University of Cologne, Germany. Before her appointment at the University of Texas at Dallas, she was professor at the Smeal College of Business at Penn State, where she was a Zimmerman Faculty Fellow. She holds a BS degree from the University of California, Berkeley, and MBA and PhD degrees from Penn State. Her research is in the area of behavioral operations management. She analyzes behavioral factors that affect supply chain contracts’ efficiency, procurement mechanism performance, and other channel coordination issues. Her work has appeared in *Management Science*, *Manufacturing & Service Operations Management (M&SOM)*, *Production and Operations*

Management, the *Journal of Operations Management*, and other journals in business and economics. She was part of a team that won the 2000 Franz Edelman Award, the most prestigious award for the practice of operations research and the management sciences. She is department editor (operations management) for *Management Science* and serves as associate editor at *M&SOM* and *Production and Operations Management*. She served as department editor (behavioral operations) for *Production and Operations Management* from 2012 to 2021. She also coedited the *Handbook of Behavioral Operations* published by Wiley in 2018.

Zhixin Liu (“Choosing Opponents in Tournaments”) is an associate professor in the Department of Management Studies in the College of Business, University of Michigan–Dearborn. He holds a PhD in operations management from The Ohio State University. His research interests are in scheduling, capacity allocation, and pricing, specifically those with game issues. He has published over 30 articles in the journals *Operations Research*, *Production and Operations Management*, *Games and Economic Behavior*, the *INFORMS Journal on Computing*, *Naval Research Logistics*, *IIEE Transactions*, *Decision Sciences*, *IEEE Transactions on Engineering Management*, *Operations Research Letters*, the *Journal of Scheduling*, and the *European Journal of Operational Research*, among others. He serves on the editorial board of *Production and Operations Management*. He is the recipient of the College of Business Distinguished Performance in Service Award in 2021, the College of Business Distinguished Performance in Research Award in 2020, and the College of Business Researcher of the Year awards in 2015 and 2019. He is a member of INFORMS and the Production and Operations Management Society. He served as the president of the INFORMS Southeastern Michigan Chapter in 2021.

Stacy Marsella (“Supply Chain Resilience: Impact of Stakeholder Behavior and Trustworthy Information Sharing with a Case Study on Pharmaceutical Supply Chains”) is a professor in the Khoury College of Computer Sciences with a joint appointment in the College of Sciences’ Psychology Department at Northeastern University. His research focuses on computational modeling of human cognition, emotion, and social behavior as a basic research method for the study of human behavior as well as for use in a wide range of applications. These applications span human-agent interaction, human-robot interaction, and training and social simulations. His research has been funded by the National Science Foundation, National Institutes of Health, Office of Naval Research, Defense Advanced Research Projects Agency, Air Force Office of Scientific Research, Department of Defense, Department of Homeland Security, Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict, and UK Research and Innovation. He received his PhD from Rutgers University and his BA from Harvard University.

Omid Mohaddesi (“Supply Chain Resilience: Impact of Stakeholder Behavior and Trustworthy Information Sharing with a Case Study on Pharmaceutical Supply Chains”) is a PhD candidate in industrial engineering in the Mechanical and Industrial Engineering Department at Northeastern University. He received his MS in financial engineering from Raja University in 2015 and his BS in industrial engineering from the University of Tabriz in 2012. His research centers on human-computer interaction and behavioral science in the supply chain context. He is interested in understanding human behavior by conducting behavioral experiments to collect data on sequential decision making and building models of human behavior. He is currently studying human decision making in pharmaceutical supply chains to improve supply chain resilience by identifying the role of information sharing on human behavior.

Ujjal Kumar Mukherjee (“Epidemic Modeling, Prediction, and Control” and “Product Recall Research: Dimensions, Methods, and Regulator Implications”) is an associate professor in the Information, Operations, Supply Chain, and Analytics area of the Department of

Business Administration at the Gies College of Business at the University of Illinois at Urbana–Champaign. He also has a joint appointment with the Carle Illinois College of Medicine as health innovation professor. His research is focused on healthcare processes, clinical healthcare delivery, and product management in healthcare supply chains. He collaborates with healthcare providers to analyze and understand healthcare issues such as social healthcare delivery, precision medicine, and robot-assisted surgical processes. He has worked with the U.S. Food and Drug Administration (FDA) to understand factors associated with drug quality and shortages. He has worked extensively with the SHIELD Illinois COVID-19 testing team to model mitigation strategies for the pandemic. His research has been funded by external agencies such as the National Science Foundation, the FDA, and C3.ai.

Alexandra Newman (“The Role of Microgrids in Advancing Energy Equity Through Access and Resilience”) is a professor in the Mechanical Engineering Department at the Colorado School of Mines (CSM). Prior to joining CSM, she was a research assistant professor at the Naval Postgraduate School in the Operations Research Department. She obtained her BS in applied mathematics at the University of Chicago and her PhD in industrial engineering and operations research at the University of California, Berkeley. She specializes in deterministic optimization modeling, especially as it applies to energy and mining systems and to logistics, transportation, and routing. She received a Fulbright Fellowship to work with industrial engineers on mining problems at the University of Chile in 2010 and was awarded the Institute for Operations Research and the Management Sciences Prize for the Teaching of Operations Research and Management Science Practice in 2013.

Destenie Nock (“The Role of Microgrids in Advancing Energy Equity Through Access and Resilience”) is an assistant professor in Civil & Environmental Engineering and in Engineering and Public Policy at Carnegie Mellon University. Her research is focused on using optimization, statistical, and decision analysis tools to evaluate the sustainability, equity, and reliability of power systems in the United States and sub-Saharan Africa. She has pioneered the development of algorithms to identify hidden forms of energy poverty (e.g., forgone heating and cooling in low-income households). She is the recipient of multiple federal grants on energy, resilience, and energy justice and has been named an Offshore Wind Energy IGERT Fellow, a Scott Institute Energy Fellow, and a Wimmer Faculty Fellow.

Amritanshu Pandey (“The Role of Microgrids in Advancing Energy Equity Through Access and Resilience”) is an incoming assistant professor (starting January 2023) in the Electrical and Biomedical Engineering Department at the University of Vermont, with a courtesy appointment in the Engineering and Public Policy Department at Carnegie Mellon University. His overarching research goal is to develop electric energy system technologies that will help combat climate change while modernizing the underlying system. In the past, he and his team developed a novel circuit-theoretic simulation and optimization framework for power grids. The project culminated in a new grid analytics tool: Simulation of Unified Grid Analysis and Renewables (SUGAR), which Pearl Street Technologies, Inc., has since commercialized and renamed as Suite of Unified Grid Analyses with Renewables. This work has won several best paper awards, including two best-of-the-best paper awards at the IEEE Power & Energy Society General Meetings in 2017 and 2021. His current research interests include grid cybersecurity, large-scale simulation and optimization of interconnected energy systems, and analytics for improved evaluation of energy equity.

Meng Qi (“Integrating Prediction/Estimation and Optimization with Applications in Operations Management”) is an assistant professor of operations, technology and information management at the SC Johnson College of Business, Cornell University. Her research interest

mainly concerns data-driven decision making with uncertainty in operations management. Her research provides both methodologies and practical solutions combining tools and concepts from optimization, machine learning, and statistics. From an applications perspective, her research investigates practical problems in supply chain management and retail operations. She received a BS in mathematics and physics from Tsinghua University and a PhD in operations research from the University of California, Berkeley.

Zohreh Raziei (“Supply Chain Resilience: Impact of Stakeholder Behavior and Trustworthy Information Sharing with a Case Study on Pharmaceutical Supply Chains”) is a PhD student in the Mechanical and Industrial Engineering Department at Northeastern University, advised by Özlem Ergun. Her research interests lie at the intersection of decision making under uncertainty, reinforcement learning, and human-computer interaction. Her recent research has focused on adaptive decision making in disrupted multiagent systems.

Sridhar Seshadri (“Epidemic Modeling, Prediction, and Control”) is currently the Alan J. and Joyce D. Baltz Professor in the Gies College of Business, University of Illinois at Urbana-Champaign, and a health innovation professor at Carle Illinois College of Medicine. He obtained his PhD from the University of California, Berkeley, after graduating from the Indian Institute of Technology, Madras, and the Indian Institute of Management, Ahmedabad. His current research projects focus on applications of analytics to different policy questions. These include healthcare as part of the HEART Analytics group; the development of micro, small, and medium manufacturing enterprises in India; and sourcing and risk management in global supply networks. His professional service includes serving as associate editor of *Naval Research Logistics*, associate editor of *Management Science*, and departmental editor of the POM-Finance Interface Department for *Production and Operations Management*.

Zuo-Jun (Max) Shen (“Integrating Prediction/Estimation and Optimization with Applications in Operations Management”) is vice president and pro-vice-chancellor (Research) and chair professor in Logistics and Supply Chain Management at the University of Hong Kong. He is on leave from the University of California, Berkeley, where he is a chancellor’s professor in the Department of Industrial Engineering and Operations Research and the Department of Civil and Environmental Engineering. He received his PhD from the Department of Industrial Engineering and Management Sciences at Northwestern University. He has been active in the following research areas: integrated supply chain design and management, operations management, data-driven optimization algorithms and applications, energy systems, and transportation system planning and optimization. Max has extensive research collaborations with government agencies as well as private companies. He serves as the president for the Production and Operations Management Society (POMS), department editor for *Production and Operations Management*, and associate editor for leading journals such as *Operations Research* and *Management Science*. Max received the CAREER Award from the National Science Foundation, received the Franz Edelman Laureate Award from INFORMS, won several best paper awards, and was elected fellow of INFORMS in 2018 and fellow of POMS in 2022.

Vikesh Siddhu (“Five Starter Pieces: Quantum Information Science via Semidefinite Programs”) is presently with IBM Quantum. He received dual BS and MS degrees in physics from the Indian Institute of Science Education and Research Mohali, India, in 2013, and MS and PhD degrees in physics from Carnegie Mellon University (CMU) in 2015 and 2020, respectively. He was a postdoctoral associate with JILA, University of Colorado/National Institute of Standards and Technology in 2021. Prior to joining JILA, he was a postdoctoral fellow in operations management with the Tepper School of Business, CMU. His research interests include quantum information theory, (non)convex optimization, and related subjects.

Sridhar Tayur (“Five Starter Pieces: Quantum Information Science via Semidefinite Programs”) is the Ford Distinguished Research Chair and University Professor of Operations Management at Carnegie Mellon University’s Tepper School of Business. He received a PhD from Cornell University and an undergraduate degree from the Indian Institute of Technology at Madras. He was the founder and chief executive officer of SmartOps (acquired by SAP in 2013) and created the field of quantum integer programming (in 2018). He is an INFORMS fellow and a distinguished fellow of the Manufacturing and Service Operations Management Society, and he has been elected to the National Academy of Engineering.

Kaitlin D. Wowak (“Product Recall Research: Dimensions, Methods, and Regulator Implications”) is an associate professor of operations management in the Mendoza College of Business at the University of Notre Dame. Kaitlin’s research interests lie within the field of strategic supply chain management, with a focus on product recalls. In recent studies, she has focused on the antecedents of product recalls and how recalls can facilitate organizational learning to mitigate the impact of future disruptive events. Her research has been published in *Manufacturing & Service Operations Management*, the *Journal of Operations Management*, *MIS Quarterly*, the *Strategic Management Journal*, *Decision Sciences*, and other top-tier journals. She is the recipient of the *Journal of Operations Management’s* 2019 Jack Meredith Best Paper Award and the 2022 Responsible Research in Management Award by the Academy of Management Fellows. She received her PhD in business administration from The Pennsylvania State University, her MS in information systems from Johns Hopkins University, and her BS in finance from the University of Florida.

Yao Zhao (“Teaching Supply Chain Analytics—From Problem Solving to Problem Discovery”) is a professor of supply chain management and codirector of the Supply Chain Analytics Laboratory at Rutgers University. He is the recipient of the National Science Foundation Career Award on Manufacturing Enterprise Systems in 2008 and the Dean’s Research Professorship for 2019–2022. He won first prize in the INFORMS Case Writing Competition in 2014 and the Dean’s Meritorious Teaching Award in 2016. His instructional game “Hunger Chain Simulation” won the DSJIE Best Teaching Brief Award in 2021 and was selected as a finalist for the 2019 DSI Instructional Innovation competition. Modules of his book, *Supply Chain Analytics: Cases, Games and Solutions*, have been adopted by more than 50 instructors from over 30 universities in the United States, United Kingdom, Europe, China, Taiwan, South Korea, Singapore, and Hong Kong as of January 2022, and they have benefited tens of thousands of students.